

REMARKS

The finality of the Restriction Requirement and the withdrawal of claims 5, 7, 8 and 13-21 has been noted.

Claims 3-4, 6 and 12 were rejected under 35 U.S.C. §112, second paragraph, for failing to particularly point out and distinctly claim the subject matter that the applicant regards as the invention.

Reconsideration is requested in view of this Amendment.

The formulas have been inserted in to claims 3 and 4. In claims 6 and 12, the terms ``such as, ``for example'' and ``preferably'' have been deleted, and where appropriate, the term ``selected from'' has been inserted. For these reasons, it is requested that this ground of rejection be withdrawn.

Claims 1-4, 6, 10 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cowie, Sorenson, Miyachi et al. and Greene et al.

Reconsideration is requested.

Cowie discloses that micronized titanium dioxide is useful as a UV absorbent in sunscreen preparations. There is no mention that titanium dioxide can act as a superoxide dismutase mimetic. Nothing in Cowie suggests the combination of any two of salicylic acid (ESA), a promoting compound (PRO) and a modulating compound (MOD) as pointed out in claim 1. A preferred combination of titanium dioxide with a copper salt of acetylsalicylic acid and the use of that claimed combination as an agricultural fungicide is pointed out in new claim 22 and this combination not suggested by

the cited references. Support for new claim 22 is found in Examples 1 and 2.

The Sorenson patent mentions that copper acetylsalicylate and analogous compounds are useful in protecting mammalian cells from damage due to gamma or X-radiation. The effect is postulated as being due to a superoxide dismutase activity of these compounds. Sorenson teaches that the superoxide dismutase activity of copper acetylsalicylate is different from the activity of natural superoxide dismutase. The molecular weight of the copper complexes disclosed by Sorenson is low (340-1800) and these lipid soluble materials are capable of passing through lipid membranes. This activity allows these compounds to pass through cell membranes and organelles. Natural superoxide dismutase has a molecular weight of 32,000. For this reason, this material does not penetrate through cell membranes and its effect is only demonstrated in the extracellular spaces as pointed out at col. 7, lines 6-10 of Sorenson. Thus, because of the different activity of copper acetylsalicylate and natural superoxide dismutase, it would not have been obvious to use copper acetylsalicylate in a sunscreen based on the information disclosed by Sorenson alone or in combination with Cowie. This is evidence that the claimed compositions are unobvious.

Miyachi et al. teach the use of superoxide dismutase from bovine blood and other oxygen intermediate scavengers as a sunburn preventative. This information is not suggestive of the use of copper acetlysaliclyate as a sunscreen.

Greene discloses sunscreen compositions that contain beta glucan or a grape seed extract in combination with superoxide dismutase. There is no suggestion that these compositions are useful in combination with copper acetylsalicylate.

The blend of acetylsalicylate and titanium dioxide is novel and it is effective as an agricultural fungicide. This activity has been demonstrated in Example 1, table 1 and Example 2, table 5. In both Examples, The effectiveness of the blend is synergistic when evaluated according to Limpel's formula. This result could not have been predicted from the teachings of the cited references and rebuts any case of *prima facie* obviousness that can be derived using the obvious to make a sunscreen argument. For these reasons, it is requested that this ground of rejection be withdrawn.

An early and favorable action is earnestly solicited.

Respectfully submitted,



James V. Costigan
Registration No. 25,669

Hedman & Costigan, P.C.
1185 Avenue of the Americas
New York, NY 10036
(212) 302-8989